

AMENDMENTS TO THE SPECIFICATION

The specification has been amended as follows:

Page 1

The paragraph at lines 9-14 has been amended as follows:

In an image forming apparatus ~~such as~~ such as a copying machine, printer or facsimile apparatus, when sheet-like recording media for printing images thereon, such as paper or OHP film, are used in large quantities, a paper feeding apparatus is employed which holds the plurality of recording media beforehand so as to feed them in succession.

Pages 1-2

The paragraph beginning on page 1, line 19 and ending on page 2, line 16 has been amended as follows:

Figs. 7A and 7B are schematic views showing the conveyance mechanism of a paper feeding apparatus 100. Fig. 7A is a plan view, while Fig. 7B is a side sectional view. The paper feeding apparatus 100 comprises an apparatus body 101, and a recording paper case 102. The apparatus body 101 has pickup rollers 103, an upper guide 104, a lower guide 105, a conveyance roller ~~106 and 106,~~ and a pinch roller 107. The recording paper case 102 has separation pawls 108, a push-up plate ~~109 and 109,~~ and a spring 110. Incidentally, only components relevant to the conveyance mechanism in the paper feeding apparatus 100 are shown in Figs. 7A and 7B. Besides, the upper guide 104, the conveyance roller

~~106 and 106,~~ and the pinch roller 107 are omitted from Fig. 7A in order to facilitate understanding ~~the of the~~ shape of the lower guide 105. Sheets of recording paper 200 are put on the push-up plate 109 included in the recording paper case 102, and the push-up plate 109 is pushed upwards by the spring 110. Owing to the upward push of the push-up plate 109, the corner parts of the uppermost recording paper 201 are pushed against the separation pawls 108.

Pages 2-3

The paragraph beginning on page 2, line 17 and ending on page 3, line 11 has been amended as follows:

In feeding the recording paper, the pickup rollers 103 included in the apparatus body 101 are rotated to carry out the uppermost recording paper 201 in a conveyance direction indicated by an arrow B. On this occasion, a frictional force acts between the uppermost recording paper 201 and the second uppermost recording paper, so that the second uppermost recording paper is about to move in the same direction as that of the uppermost recording paper. However, the movement is hampered by the separation pawls 108, and only the uppermost recording paper 201 is separated and carried to a guide section. A conveyance path is changed to be upward by the upper guide 104 and the lower guide 105. The recording paper ~~201 carried~~201, carried out by the rotations of the pickup rollers ~~103 is~~103, is bent along the conveyance path, and the front end edge thereof reaches the conveyance roller 106 and the pinch roller 107. The

conveyance roller 106 and the pinch roller 107 hold the front end part of the recording paper 201 therebetween, and carry out this recording paper to the conveyance path leading to an image forming section.

Page 6

The paragraph at lines 4-8 has been amended as follows:

An ~~object~~ aspect of the invention is to provide a paper feeding apparatus which prevents the bending of paper, paper jamming, etc. from occurring, and an image forming apparatus which includes the paper feeding apparatus, and which can be made smaller in size and higher in processing speed.

Page 11

The heading at line 9 has been amended as follows:

DETAILED DESCRIPTION OF THE ~~PREFERRED EMBODIMENTS~~ PRESENT
INVENTION

The paragraph at lines 10-11 has been amended as follows:

Now referring to the drawings, ~~preferred~~ embodiments of the invention are described below.

Pages 11-12

The paragraph beginning on page 11, line 18 and ending on page 12, line 19 has been amended as follows:

The image forming apparatus body 2 has a recording paper supply section 4, an image transfer section 5, an image fixing section 6, a recording paper discharge section ~~7 and 7,~~ and an image read section 8. The recording paper supply section 4 is a tray which holds and supplies recording paper to print images thereon, and it is used in a case where the number of the required sheets of recording paper is comparatively small. The image transfer section 5 forms a toner image on the surface of a photosensitive drum on the basis of image data received from an information processing apparatus such as personal computer (PC), image data read by the image read section 8, or the likes, and it transfers the formed toner image onto the recording paper. The image fixing section 6 heats the recording paper bearing the toner image and melts a toner so as to fix the toner onto the surface of the recording paper. The recording paper discharge section 7 accumulates thereon the sheets of recording paper on which images have been printed. The image read section 8 receives reflected light from an original by a CCD (Charge Coupled Device) sensor or the like, and outputs the received information as image data. In a case where the recording paper is supplied from the recording paper supply section 4, it is conveyed along a conveyance path indicated by an arrow A. On the other hand, in a case where

the recording paper is fed from the paper feeding apparatus 3, it is conveyed along a conveyance path indicated by an arrow B.

Page 13

The paragraph at lines 4-16 has been amended as follows:

Figs. 3A and 3B are schematic views showing the construction of the paper feeding apparatus 3. Fig. 3A shows a plan view, while Fig. 3B shows a side sectional view. The paper feeding apparatus body 9 has pickup rollers 11, an upper guide 12, a lower guide 13, a conveyance roller ~~14 and~~14, and a pinch roller 15. The recording paper case 10 has separation pawls 16, a push-up plate ~~17 and~~17, and a spring 18. Incidentally, only components relevant to a conveyance mechanism in the paper feeding apparatus 3 are shown in Figs. 3A and 3B. Besides, the upper guide 12, the conveyance roller 14 and the pinch roller 15 are omitted from Fig. 3A in order to facilitate understanding the shape of the lower guide 13 to be explained later.

Pages 14-15

The paragraph beginning on page 14, line 13 and ending on page 15, line 22 has been amended as follows:

When an image forming process is started in the image processing apparatus body 2 by issuing a request for the conveyance of the recording paper 20 from the image processing apparatus body 2 to the paper feeding apparatus 3, a motor not shown is driven to rotate the pickup rollers 11 being movement

means, about the axes thereof. The axes of the rotations of the pickup rollers 11 are arranged to be orthogonal to the conveyance direction of the recording paper. The pickup rollers 11 are rotated to touch the uppermost recording paper 21, whereby the recording paper 21 is moved in the conveyance direction indicated by the arrow B. As shown in Fig. 3B, the sectional shape of each pickup roller 11 as viewed in the direction of the axis thereof is the shape of a circle whose circumference is partially omitted. When the conveyance request is nullified, the pickup roller 11 is stopped so that the omitted circumferential part may ~~confront~~ oppose the recording paper. The position of each pickup roller 11 is set so that the circumferential part thereof may come into touch with the uppermost recording paper 21. In the absence of the conveyance request, therefore, the pickup roller 11 and the recording paper 21 are out of touch. Since the uppermost recording paper 21 is moved only during its touch with the pickup roller 11, the feed magnitude of the recording paper 21 based on one revolution of the pickup roller 11 can be adjusted by regulating the length of the circumferential part of the pickup roller 11. Usually, the feed magnitude is set sufficiently longer than a distance from the front end edge of the recording paper 20 put on the push-up plate 17, in the conveyance direction thereof, to the conveyance roller 14. In a case, for example, where the distance from the front end edge to the conveyance roller 14 is 40mm, the length of that circumferential

part of each pickup roller 11 which comes into touch with the recording paper 21, namely, the feed magnitude is set at 60mm.

Pages 17-18

The paragraph beginning on page 17, line 10 and ending on page 18, line 5 has been amended as follows:

In the conveyance path extending from over the push-up plate 17 to the conveyance roller 14, drawbacks such as the bending and jamming of the recording paper occur mainly in the guide section. A major cause for the occurrences of the drawbacks is the deformations of the corner parts of the recording paper as shown in Figs. 8A and 8B. ~~In the invention, parts~~Parts of the lower guide 13 being guide means are cut away lest the deformed corner parts of the recording paper should touch the lower guide 13 in the conveyance of the recording paper. As shown in the plan view of Fig. 3A and the perspective view of Fig. 4, the lower guide 13 is notched at the two parts which the corner parts touch in the prior art in the conveyance of the recording paper. Thus, in the course in which the recording paper is conveyed, the deformed corner parts of the recording paper can resume their shapes by the elastic repulsive forces of their own, within a space which is defined by parts facing the notches of the lower guide 13, other components existing in the vicinity of the backside of the lower guide 13 opposite to the guide surface thereof, the inwalls of the paper feeding apparatus body 9 and the recording paper case 10, and so forth.